

inferred. It is little wonder that the practice of bribing physicians in order to insure adequate treatment is a major source of income for most Soviet doctors² and not merely limited to the "medical elite," as Friedenberg would have the reader believe.

From the individual patient's perspective, the Soviet health care system is at best an unfriendly monolith. There is little, if any, patient participation in the choice of treatment, thought by most practitioners to be vital to the therapeutic process. Indeed, patients with certain diagnoses, such as solid tissue tumors, *must* receive treatment, almost exclusively limited to surgical and radiation modalities. Thus, even avoiding potentially mutilating treatment is not an option in most circumstances.³ Simple infection control and attention to nutritional needs are absent in most hospitals in the USSR.

On the broader level of public health measures, Soviet citizens have witnessed a decrease in average life expectancy during the period 1975 to 1985. Infant mortality figures have also risen during this time, placing the Soviet Union 50th among all nations in the world and the worst among the developed countries.

There are vast economic and political problems within the Soviet Union, to be sure, and there is little doubt of their adverse impact on Soviet health care. Compared to even more poorly financed health care systems, such as that of the People's Republic of China, the Soviet system cannot in any sense be viewed as a paragon of socialist success. Fundamental changes in the education of Soviet medical students and legal incentives for physician productivity will be required before the appalling decline in the general level of health care is reversed.

ALAN P. ZELICOFF, MD
Internal Medicine Associates, PA
6100 Pan American Freeway, NE
Suite 365
Albuquerque, NM 87109

REFERENCES

1. Friedenberg DS: Soviet health care system. *West J Med* 1987; 147:214-217
2. Ryan M: Remuneration of Soviet medical personnel. *Br Med J* 1987; 294:1340
3. Knaus W: *Inside Russian Medicine*. New York, Everest House, 1981

Use and Safety of Miconazole During Pregnancy

TO THE EDITOR: The article by Chow and Jewesson on "Use and Safety of Antimicrobial Agents During Pregnancy" in the June 1987 issue¹ indicated that use of miconazole nitrate (Monistat) was relatively contraindicated during pregnancy. According to the 1987 *Physicians' Desk Reference*, there were no adverse effects noted or complications attributable to miconazole nitrate therapy in infants born to 514 pregnant women treated with the drug during pregnancy. The second edition of *Drugs in Pregnancy and Lactation*² places miconazole nitrate in the category of risk factor B, which indicates that animal reproductive studies have not demonstrated fetal risk, and controlled studies in pregnant women have not shown an adverse side effect. On the other hand, tetracycline is given a risk factor D in the same book, whereas in the article by Chow and Jewesson, tetracyclines are called relatively contraindicated, which would indicate that miconazole preparations have the same risk as tetracycline in pregnancy, which I don't think is supported by the literature.

I feel that we have enough problems involving liability with the use of medications during pregnancy without adding

fuel to the fire by publishing an article suggesting that a very commonly used drug like Monistat has the same risks as a drug that we are very reluctant to use in pregnancy, tetracycline. I have seen no other published data that suggest a problem with the use of Monistat during pregnancy. Like anyone treating pregnant women, I am reluctant to use Monistat or any drug in the first trimester because of some concern about potential for teratogenicity. The use of Monistat certainly does not, in my experience, have the risk that is being given to it by the authors of this article.

RONALD E. AINSWORTH, MD
6009 Pentz Rd, Suite D
Paradise, CA 95969

REFERENCES

1. Chow AW, Jewesson PJ: Use and safety of antimicrobial agents during pregnancy. *West J Med* 1987; 146:761-764
2. Briggs GG, Freeman RK, Yaffe SJ: A reference guide to fetal and neonatal risk. *In* *Drugs in Pregnancy and Lactation*. Baltimore, Williams and Wilkins, 1983, pp 294-295

* * *

Drs Jewesson and Chow Respond

TO THE EDITOR: The topic of antimicrobial use during pregnancy remains relatively controversial and poorly understood. The decision to use an antimicrobial agent must always be made with consideration to both the potential benefits and the risks to mother and fetus. For only a small number of drugs do we have sufficient evidence to categorically state that their use is considered safe or that their toxicity outweighs any usefulness they might provide in a clinical setting. For the remaining agents, a judgment must be made based on an objective interpretation of the available literature. Such is the case with miconazole nitrate.

Dr Ainsworth correctly states that miconazole nitrate is frequently used in pregnant women and that this use does not appear to be associated with any apparent harm to mother or fetus. Indeed, Briggs and co-workers¹ consider miconazole nitrate to carry a risk factor category of B, implying that there are no controlled studies in women that demonstrate an adverse effect from this drug.

What Dr Ainsworth neglects to identify is that the available literature refers specifically to topical miconazole nitrate. In view of the fact that only small amounts of the drug are absorbed systemically when applied to the vagina for moniliasis, it is not surprising that a low incidence of overall adverse effects has been observed. However, our paper specifically addresses parenteral antimicrobials, and our recommendations pertain to the injectable form of miconazole nitrate only.

The safe use of miconazole nitrate injection in pregnancy has not yet been established.³ Studies on nonpregnant patients have shown a high incidence of phlebitis, pruritus and rash in addition to several hematologic abnormalities (decreased hematocrit, thrombocytosis, leukopenia). A reversible hyperlipidemia has also been described, as well as hyponatremia and hypotension.² In view of these potentially serious complications, the authors classified the use in pregnancy as "relatively contraindicated." As with all other drugs in this general category, careful consideration of potential toxicities and alternate agents must be made before use of the drug is initiated.

We would concur with Dr Ainsworth that topical miconazole nitrate is probably a safe agent to administer to a pregnant patient (as is topical nystatin), and that this use can be categorized as "use with caution." However, we